

# Sheikh Ziauddin

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## CONTACT INFORMATION

Department of Computer Science,  
COMSATS Institute of Information Technology,  
Park Road, Islamabad, Pakistan.

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## RESEARCH INTERESTS

Computer Vision, Image Processing, Machine Learning, Deep Learning, Applied Cryptography

## EDUCATION

**Asian Institute of Technology**, Pathumthani, Thailand

*PhD in Computer Science*

**2005-2009**

- Dissertation title: "Secure Use of Biometric Data in Cryptographic Applications"
- Supervisors: Matthew N. Dailey and Chanathip Namprempre
- Course work CGPA: 3.75

**Bahria Institute of Management and Computer Sciences**, Islamabad, Pakistan

*Master of Computer Science*

**2001-2003**

- CGPA: 3.8

**UCET, Bahauddin Zakariya University**, Multan, Pakistan

*Bachelor of Civil Engineering*

**1994-2000**

- Points: 69%

## PROFESSIONAL EXPERIENCE

**RCV Lab, Queen's University**, Kingston, Canada

*Postdoctoral Fellow*

**May 2018 – present**

Research position. Research area: Dynamic Projection Mapping for ProCam Systems.

**COMSATS Institute of Information Technology**, Islamabad, Pakistan

*Assistant Professor*

**September 2009 – March 2018**

Teaching and research position. Main courses: Computer Vision, Digital Image Processing, Applied Cryptography, Cryptography Essentials, Network Security, Information Hiding & Multimedia Security, Object-Oriented Programming, Discrete Structures.

**I3S Lab**, Sophia Antipolis, France

*Postdoctoral Fellow*

**February 2012 – August 2012**

Research position. Research area: Automated Validation of Internet Security Protocols.

**Asian Institute of Technology**, Pathumthani, Thailand

*Junior Lecturer*

**December 2006**

Teaching position. Short course: Information Technology for Non-Professionals.

**COMSATS Institute of Information Technology**, Islamabad, Pakistan

*Lecturer*

**March 2005 – August 2005**

Teaching position. Main course: Object-Oriented Programming.

**Bahria Institute of Management and Computer Science**, Islamabad, Pakistan

*Visiting Lecturer*

**September 2004 – June 2005**

Teaching position. Main courses: Visual Programming, Client-Server Programming

**GEOPAQ Technologies (Pi Sigma)**, Islamabad, Pakistan.

*Software Engineer*

**December 2003 – March 2005**

Software development position. Main work: Website development using dot-net framework

**British Columbia International**, Islamabad, Pakistan

*Design Engineer*

**March 2000 – March 2001**

Civil works design position. Main work: Computerized infra-structure design for Bahria Town, Islamabad.

SELECTED  
PUBLICATIONS

- Tahir Mahmood, Sheikh Ziauddin, Ahmad R. Shahid and Asad Safi “Mitosis Detection in Breast Cancer Histopathology Images Using Statistical, Color and Shape-Based Features”, *Journal of Medical Imaging and Health Informatics*, Vol. 8, No. 5, pp. 932-938, 2018.
- Rabia Tahir, Ahmad R. Shahid, Sheikh Ziauddin and Asad Safi, “Outdoor Scene Labeling using ALE and LSC Superpixels”, In: *Proc. of International Conference on Content-Based Multimedia Indexing (CBMI), Italy, 2017*.
- Najeebullah Shah, Sheikh Ziauddin and Ahmad R. Shahid, “Brain Tumor Segmentation and Classification using Cascaded Random Decision Forests”, In: *Proc. of International ECTI Conference (ECTI-CON), Thailand, 2017*.
- Tahir Mustafa Madani, Muhammad Tahir, Sheikh Ziauddin, Syed Ali Raza and Mirza Waqar Ahmed, “An Accelerometer-based Approach to Evaluate 3D Unistroke Gestures”, *International Arab Journal of Information Technology*, Vol. 12, No. 4, pp. 389-394, 2015.
- Muhammad Tahir, Tahir Mustafa Madani, Sheikh Ziauddin, Muhammad Arshad Awan, Waqar Hussain Rana, Saher Khalid and Jamil Ahmad, “Wiimote Squash: Comparing DTW and WFM Techniques for 3D Gesture Recognition”, *International Arab Journal of Information Technology*, Vol. 11, No. 4, pp. 362-369, 2014.
- Sheikh Ziauddin and Bruno Martin, “Formal Analysis of ISO/IEC 9798-2 Authentication Standard using AVISPA”, In: *Proc. of Asia Joint Conference on Information Security (AsiaJCIS) , South Korea, 2013*.
- Sajida Kalsoom, Sheikh Ziauddin and Abdul R. Abbasi, “An Image-Based CAPTCHA Scheme Exploiting Human Appearance Characteristics”, *KSII Transactions on Internet and Information Systems*, Vol. 6, No. 2, pp. 734-750, 2012.
- Sajida Kalsoom, Sheikh Ziauddin and Muhammad Tahir, “SportsFaces: A Graphical Password System based on Images of Sports Celebrities”, In: *Proc. of International Conference on Innovative Internet Community Systems (I2CS), LNI Vol. P-186, Gesellschaft fur Informatik (GI), pp. 149-158, Germany, 2011*.
- Sheikh Ziauddin and Matthew N. Dailey, “Robust Iris Verification for Key Management”, *Pattern Recognition Letters*, Vol. 31, No. 9, pp. 926-935, 2010.
- Sheikh Ziauddin and Matthew N. Dailey, “A Robust Hybrid Iris Localization Technique”, In: *Proc. of International ECTI Conference (ECTI-CON), Thailand, 2009*.
- Sheikh Ziauddin and Matthew N. Dailey, “Iris Recognition Performance Enhancement Using Weighted Majority Voting”, In: *Proc. of International Conference on Image Processing (ICIP), USA, 2008*.

FUNDED  
PROJECTS

**National Center of Artificial Intelligence (PKR 70 Million)**

Co-Principal Investigator, Computer Vision Lab at CIIT

**National Grassroots ICT Research Initiative (PKR 74,750)**

Principal Investigator, undergraduate project entitled “Robust and Efficient Iris Recognition”

HONORS AND  
AWARDS

- Erasmus Mundus Mobility with Asia (EMMA) Postdoctoral Research Fellowship, University of Nice, France, 2012
- Higher Education Commission (HEC) Postgraduate Research Scholarship, Asian Institute of Technology, Thailand, 2005-2009
- Bahria Institute of Management and Computer Sciences: graduated Cum Laude, honors in Computer Science, Islamabad, Pakistan, 2003